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STATE OF NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION

MICHAEL F. EASLEY  
GOVERNOR

1534 MAIL SERVICE CENTER, RALEIGH, N.C. 27699-1534

W. LYNDY TIPPETT  
SECRETARY

April 4, 2003

MEMORANDUM

TO: Mr. Calvin W. Leggett, P.E.  
Manager, Program Development Branch

FROM: Mr. Derrick W. Lewis, P.E.  
Feasibility Studies Unit Head *Derrick W. Lewis*

SUBJECT: Re-evaluation of U-2917, NC 12 from Wilkinson Street in Kill Devil Hills to  
US 158 in Kitty Hawk, Dare County.

As requested, we have completed a re-evaluation of the U-2917 feasibility study. As part of this re-evaluation, we have considered three alternatives to address the beach erosion problem that threatens NC 12 in this area. These alternatives are relocation of NC 12, sandbags to protect the existing NC 12 alignment and beach nourishment to protect NC 12 in this area.

The original feasibility study recommended that NC 12 be relocated parallel to the west of the current location as shown on Figure 1. The recommended cross section is a three-lane shoulder section with 4 foot-paved shoulders on 80 feet of right of way. It is anticipated that there will be 13 residences and 3 businesses relocated due to this proposed relocation of NC 12. The total cost of this alternative, including construction and right-of-way, is estimated to be \$42,100,000.

Right-of-Way .....	\$	31,100,000
Construction .....	\$	11,000,000
Total Cost .....	\$	42,100,000

As part of this re-evaluation, we considered the possibility of placing sandbags along the existing section of NC 12 from Wilkinson Street in Kill Devil Hills to a point 3.7 miles north. While it may be possible to place sandbags at this location, they would be considered temporary until a permanent solution could be provided. The sandbags would be placed below grade and must be covered at all times. It is anticipated that there is the potential for 142 residential and no business relocations with the sandbagging of this section of NC 12. The total cost of this alternative, including right of way and construction, is estimated to be \$80,000,000.

Right-of-Way .....	\$	73,100,000
Construction .....	\$	6,900,000
Total Cost .....	\$	80,000,000

The third alternative considered as part of this re-evaluation is beach nourishment along this section of NC 12. Given the anticipated magnitude of an effective beach nourishment project, this alternative is considered well beyond the scope of this project and detailed studies have not been performed. However, the Army Corps of Engineers (ACE) has performed beach nourishment studies of this area in the past. In order to assist the ACE with their benefit/cost analysis for a beach nourishment project in this area, the Department has estimated the value of the properties on both sides of NC 12 from Wilkinson Street to a point 3.7 miles.

The estimated value of the properties on the eastside of this section of NC 12 is \$73,100,000 and includes 142 residents and no businesses. The estimated value of the properties on the westside is \$133,400,000 and includes 317 residential and 11 businesses. These property values in conjunction with the relocation cost for NC 12 previously mentioned in this memorandum result in a grand total of \$248,600,000 which should be applied to the benefit/cost analysis for the ACE's beach nourishment studies of this area.

As you are aware, this work is preliminary and is not the product of comprehensive environmental or design evaluations. If you have any additional questions concerning this project, please call me at 733-2039.

DWL/dl

cc: Mr. Stan M. White, Member, Board of Transportation  
Mr. Don Conner, P.E.  
Mr. Al. Avant  
Mr. Ray McIntyre, P.E.  
Mr. Ron Fascher

END PROJECT

ATL

Kitty Hawk  
M 3.5 Pier

BYRD ST.

FORCK ST.

MAYNARD ST.

BENNETT ST.

NC 12

ECKHART ST.

BALCHEN ST.

LINDBERG AVE.

KITTY HAWK

SOUTHERN SHORES

US 158

WRIGHT MEM BR

Jean Guite

Austin Cem

Sound  
Landing

CURRITUCK

SOUND

